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ABSTRACT

A non-sexist preschool program was developed which attempted to eliminate sex-stereotyping in room arrangement, classroom materials, curriculum units, and teacher behavior and language. Measurements of sex-role stereotyping administered to the children before and after a 6-month exposure to the non-sexist program consisted of an Occupation Clue Test, an adaptation of the Toy Preference Test, and an adaptation of the Incomplete Stories Test. Children in a comparable control group, who did not participate in the non-sexist program, were also tested at the post-program time of measurement. Comparison of the means of the experimental group before and after exposure to the non-sexist program indicated that the means were not significantly different for all the measurements taken together. However, comparison of the means of the experimental group and the control group at the post-program time of measurement indicated that the experimental group was significantly less sex-typed than the control group. Comparison of the pre- and post-program means for the three separate measures of comparison of the means of the experimental group and the sex-typing indicated a significant difference on only the Occupation Clue Test measurement. Thus it appeared that the area of the non-sexist program that produced the greatest impact on the children was the introduction of non-stereotyped occupation persons (a female police officer, for example) in the classroom setting. A literature review, bibliography, and samples of test items are included. (Author/SS)

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THE EFFECTS OF A NON-SEXIST PRE-KINDERGARTEN PROGRAM ON SEX-ROLE STEREOTYPES IN YOUNG CHILDREN

Presented to

the Faculty of the Master of Arts in Teaching Program

Trinity College

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts in Teaching

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by

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May 1978

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INTRODUCTION

In today's changing society many issues concerning human rights and equality have been of primary concern. One issue that has received much attention is sexism. Sexism as a social issue began in the feminist movement but has since been expanded to include both sexes (Klapper, 1971; NCTE Guidelines, 1975; Williams, Bennett, and Best, 1975).

In recognizing sexism as a social issue in our society, educators have identified sexist practices in the school environment (Frazier and Sadker, 1973; Sprung, 1975; McCune and Matthews, 1976). Schools have been accused of encouraging rigid sex-stereotyped roles which do not allow children to develop to their fullest potential (Sprung, 1975). Therefore non-sexist guidelines are being created by various educational and parental groups concerned with sexist practices in the classroom.

Non-sexist education is based on the belief that young children are aware of sex identity, sex-typed behavior, and sex-stereotypes; and that the classroom environment can affect the child's perception of sex-roles (Sprung, 1975; Cuffaro, 1975; Frazier and Sadker, 1973). Research results have found that children as young as four years of age are aware of gender identity and sex-stereotypes of objects and behavior (Maccoby and Jacklin, 1974; DeLucia, 1963; Brown,

1957). Theories concerning the learning of sex differences vary. However, many researchers believe that sex-role acquisition is influenced by various socialization agencies, including the school (Lee, 1974; Maccoby and Jacklin, 1974).

Since young children enter our educational system with an awareness of gender roles and schools often encourage sex-stereotyping, many educators are working to reduce sexism throughout the educational strata (Sprung, 1975; Cuffaro, 1975; Simmons, 1976). The main goal of non-sexist education is to encourage the cognitive, physical, social, and emotional development of all children regardless of sex (Shargel and Kane, 1974; Sprung, 1975; Frazier and Sadker, 1973).

> . . . we must foster and nuture the whole child and allow him or her to reach his or her fullest potential, unencumbered by rigid sex-role stereotyping that is equally damaging to the growth and development of both female and male children.[1]

Some of the approaches to non-sexist education that have been formulated include consciousness-raising for school staff and parents, and development of non-sexist materials and curriculum ideas (Sprung, 1975; McCune and Matthews, 1976).

After reading Non-Sexist Education for Young Children by Barbara Sprung, this teacher has found possible answers and solutions to questions concerning sex-limited behavior observed in pre-kindergarten classrooms. Such

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[1]Barbara Sprung, Non-Sexist Education for Young Children (New York: Citation Press, 1975), p. 26.

observations include male domination in the block area, sexist conversation such as, "You can't do that you are a boy/girl," and individuals limiting their activities due to sex-roles. Since the classroom activities have been devised for the growth and development of all children, this teacher is concerned with the restraints rigid sex-roles impose on learning and the contingency of teacher influence in encouraging non-stereotyped options. Non-sexist education provides a potential catalyst for discouraging rigid sex-roles among young children.

However, the effect of such non-sexist education has not been documented. This writer believes there is a need to test the effectiveness of non-sexist materials and the role of the teacher on sex-stereotyped roles. Perhaps from such a study educators can better understand their role in the development of the total child in a changing society.

Definition of Terms

Sexism

Sexism refers to "words or actions that arbitrarily assign roles or characteristics to people on the basis of sex."[2]

Non-Sexist

Non-sexist refers to materials, actions, and words that eliminate sex as a basis for assigned roles or characteristics.

Sex-Roles

Sex-roles are attributes, behaviors, and attitudes associated with an individual's sex.

Sex-Typed

Sex-typed refers to behaviors or materials that are categorized as appropriate or desirable for one sex and inappropriate or undesirable for the other sex.

Sex-Stereotypes

Sex-stereotypes are characteristics based on sex membership and applied to situations and people without variation for individual behavior or attributes.

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[2]The National Council of Teachers of English, "Guidelines for Nonsexist Use of Language in NCTE Publications," 1975, p. 1.

Section I

REVIEW OF LITERATURE

Chapter 1

SEX-ROLE AND THE PRE-KINDERGARTEN CHILD

The questions of sex-roles, whether innate or learned, and the development of sex differences in children is a topic of considerable discussion and controversy (Maccoby, 1966; Maccoby and Jacklin, 1974).

> Sex categories represent basic biological and social differentiations which not only provide the elemental building blocks for all social structures, but which permeate and pattern their cultural systems as well. Few aspects of socialization produce for the neonate as pervasive an attitudinal complex as that of sex-role.[3]

In order to better understand the effects of sex-role behavior on the pre-kindergarten child, educators need to be aware of the psychology of sex differences. To discuss this point the chapter is divided into three sections. These entail: (1) sex differences, (2) sex-typing, and (3) the socialization of sex-roles among young children.

Sex Differences

At birth a child is classified by sex according to anatomical differences, and ascribed gender is associated with variations in behavior from birth to death.

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[3]Arthur M. Vener and Clinton A. Snyder, "The Preschool Child's Awareness and Anticipation of Adult Sex-Roles," Sociometry, 29:159, February, 1966.

> Ascription by sex is not hard to explain. There are no other social bases for distinction among the newborn . . . . Only sex, kinship, and skin color can be ascribed for an infant with relative certainty that he will remain in these categories for the rest of his life.[4]

Behavioral studies of sex differences in newborns, before sex-role socialization, have proven to be difficult due to the differential treatment of the sexes by most people who have contact with infants (Maccoby and Jacklin, 1974). Conclusive evidence supporting sex-linked behavior during the first year of life remains inadequate (Maccoby and Jacklin, 1974).

However, with the onset of social play, around the age of two years, behavioral differences related to aggression have been observed (Maccoby and Jacklin, 1974). Boys as young as two years of age have been found to be more physically aggressive than girls (Sears, 1970; McIntyre, 1969). Differences associated with verbal aggression are not as conclusive, although findings indicate that preschool aged girls are more inclined to be aggressive on a verbal and prosocial level than boys (McIntyre, 1969; Mischell, 1966).

Sex-Typing

Sex-typed interests and activities have been observed

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[4]Sanford M. Dornbusch, "Afterward," The Development of Sex Differences, ed. E. E. Maccoby (Stanford: Stanford University Press, 1966), p. 208.

among preschool aged boys and girls (Rabban, 1950; Brown, 1957). One measurement used to ascertain sex differences in choices is the toy preference test. Using pictures of toys categorized as masculine, feminine, and neuter, children are asked to make selections in order of preference (Rabban, 1950; Ward, 1968; DeLucia, 1963). Rabban (1950) found that children as young as three choose toys appropriate to their gender. During the nursery and primary school years, sex-typed preferences tend to increase with age (DeLucia, 1963; Ward, 1968; Rabban, 1950).

In order to measure the degree of sex-typing, studies have focused on the use of projective testing. The "It" test developed by Brown (1957) asks the child to select the toys or activities that "It," a stick figure with no observable gender, would prefer. Results show that both sexes have "It" involved in same sex activities (Brown, 1957; Hartup and Zook, 1960). For instance a boy might have "It" select playing pilot with an airplane, while a girl might have "It" play mother with a doll. Findings using the "It" and the toy preference tests show young children are aware of gender appropriate behavior and often project this knowledge to sex-typed preferences.

Another area of sex-typing found in young children is knowledge and application of sex-stereotypes. Children have displayed sex-stereotypes when choosing sex appropriate toys for the opposite gender, e.g. girls choose guns for boys (DeLucia, 1963; Ross and Ross, 1972). Other studies

have used gender stereotyped questions covering child to adult behavior roles and have found children as young as four already forming rigid sex-stereotypes (Harwood, 1975; Williams, Bennett, and Best, 1975).

Although both genders display sex-typing, boys have been found to be more sex-typed than girls. Males have made more sex-typed choices in several test situations (Nadelman, 1974; DeLucia, 1963; Brown, 1957; Ward, 1968). Boys avoided the sex inappropriate toy more often than girls when an unattractive neutral toy was paired with an attractive opposite sex toy (Hartup and Zook, 1960). In another study teachers selected an opposite sex toy preference in an attempt to have children change their choice of toys (Ross and Ross, 1972). Ross found both sexes resisting the sex inappropriate toy selected by the teacher, but boys used more resistant responses than girls.

Socialization of Sex-Roles

Three theories are considered in discussing the socialization of sex-roles. The first is Kohlberg's cognitive developmental theory based on Piaget's developmental stages (Kohlberg, 1966). According to Kohlberg the child develops knowledge of his/her gender around the age of two years but does not realize that sex is unchangeable. During this period, the child takes clues from the environment concerning appropriate sex standards. At approximately five years of age the child develops sex constancy and cognitively

applies sex appropriate rules to situations beyond personal experience. These standards are often a distortion of reality and are based on a limited set of characteristics describable from a child's viewpoint (e.g. dress and hair styles). The young child's conception of sex-roles is often simplified, overstated, and stereotyped. Such sex-role concepts are not static but change with intellectual growth.

Another theory concerning sex-role development is the social learning theory (Mischel, 1966). According to Mischel, sex-roles are formed by modeling and reinforcement for proper sex behavior. The child learns from direct experiences and observations and then generalizes to new situations. The social learning premise emphasizes the role of imitation.

The third view of sex-role acquisition is based on the belief that sex differences are culturally transmitted patterns of behavior determined for the most part by society (D'Andrade, 1966). The culture sets standards for sex appropriate behavior which are displayed to the child by family, schools, and other socializing agencies (Lee, 1974).

Each of the foregoing theories has one aspect in common, the influence of outside forces on sex-role acquisition. The types and degree of environmental input, how it is internalized, and the role of the individual vary in each theory. The complex matter of differentiation of the sexes with respect to behavior seems to be affected by many socialization agencies to some degree.

Chapter 2

ROLE OF THE NURSERY SCHOOL IN SEX-ROLE SOCIALIZATION

Schools develop curricula which contain the skills expected for each child as they move through the educational system. However, educators have also recognized a hidden curriculum of unintended goals transmitted along with the official content matter (Frazier and Sadker, 1973). Schools as a complex social environment often transmit information and values not found in the official curriculum. Dewey reminds us of the existence and influence of such hidden curricula:

> Perhaps the greatest of all pedagogical fallacies is the notion that a person learns only the particular thing he is studying at the time. Collateral learning in the way of formation of enduring attitudes, of likes and dislikes, may be and often is much more important than the spelling lesson or lesson in geography or history that is learned.[5]

One area found in the hidden curriculum is the socialization of sex-roles (Frazier and Sadker, 1973). Nursery schools transmit traditional sex-roles and maintain stereotyped role expectations and behaviors in various ways. To discuss this point the chapter is divided into three sections. These entail: (1) play areas, (2) classroom

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[5]James Dewey, Experience and Education (London: Collier-MacMillan, 1963), p. 48.

materials, and (3) curriculum.

Play Areas

Sex segregated activity areas have been cited in nursery school classrooms (Shure, 1963; Fagot and Patterson, 1969; Lee, 1976). Researchers have found boys use the block area more frequently and constructively than girls (Shure, 1963; Fagot and Patterson, 1969). Yet early childhood educators have emphasized the importance of block participation as a catalyst to learning in such areas as mathematics, science, language arts, social studies, art, social development, and physical development (Hirsch ed., 1974).

Some educators feel the block environment is too often filled with sex-typed props. Accessories such as wooden family members and community helpers have traditionally presented a stereotyped picture of both genders (Sprung, 1975). A block area filled with such male oriented accessories may be more attractive to boys than to girls (Sprung, 1975; Lee, 1976; Cuffaro, 1975; Simmons, 1976).

Another sex segregated area often found in the nursery school classroom is the housekeeping corner, sometimes known as the doll corner or dress-up area. The importance of this area is to facilitate sociodramatic play. Sociodramatic play develops creativity, intellectual growth, and social play (Smilansky, 1971). However, this segment of the room often consists only of a housekeeping corner filled with female stereotyped props limiting dramatic play

to a restrictive portrayal of family life (Cuffaro, 1975). Perhaps due to the sex-typed props, studies have found girls participating more constructively and more frequently in this area of the classroom (Shure, 1963; Fagot and Patterson, 1969). Such gender separated areas deny both boys and girls learning opportunities found in dramatic play and block building.

Classroom Materials

Examination of classroom materials has found gender typed roles displayed in play accessories. Props for the block area have often included the Guidecraft family wooden figures which show mother with a baby painted on her and grandmother with an apron and a mixing bowl. The portrayal of female workers has often been limited to a nurse.

The same sex stereotypes are often displayed in educational aids such as photographs and flannel board figures of community helpers and the family (Sprung, 1975). Sex-typed roles are also found to some degree in puzzles and games but to a higher degree in books (Shargel and Kane, 1974; Sprung, 1975; Frazier and Sadker, 1973).

Sex-typing in children's books is very widespread (Sprung, 1975; Frazier and Sadker, 1973). Books present society's values and myths, and play a large role in socialization (Weitzman, 1972). Weitzman has examined the portrayal of the sexes in a survey of picture books receiving the Caldecott medal for excellency during the years 1967-1971,

and the best selling Little Golden Books. Females were found under-represented in titles, central roles, pictures, and stories. A ratio of eleven male illustrations to one female was found. The ratio increased to 95:1, if the sex of animal characters is included. When girls are found in story books, they are often passive while boys are active. The adult role models are also stereotyped. Women are rarely presented in a profession or job although in reality they represent a large percentage of the work force. Many of the books surveyed in Weitzman's study are considered classics and are found in many nursery school classrooms.

Curriculum

Sex-typing is promulgated through the curriculum, especially in early education programs focusing on the family and community (Sprung, 1975). The presentation of community helpers often excludes women and concentrates on stereotyped work roles (Sprung, 1975; McCune and Matthews, 1976). However, women represent a substantial part of the work force, and the number of males and females entering previously sex-typed occupations has increased (McCune and Matthews, 1976; Sprung, 1975; Frazier and Sadker, 1973).

The same limitations may be found in the study of the family as a nuclear stereotyped unit. The traditional family of mother, father, and children is declining as the number of children living in one parent homes and other family groupings increases (McCune and Matthews, 1976;

Sprung, 1975). Due to the changing family structure and other societal influences, the roles of family members have also been subject to alterations (Frazier and Sadker, 1973; Shargel and Kane, 1974). Studies of the family and community workers are created to help children understand the world around them. Presentations of only the traditional aspects of families and careers may present confusion to the reality of a child's experience.

Chapter 3

ROLE OF THE TEACHER IN SEX-ROLE SOCIALIZATION

A controlling factor in the use of sex-typed material, environment, and curriculum is the teacher. Research examining the role of the teacher in the socialization of sex-roles is limited. Due to the lack of male teachers in the early school years, it has focused on the female teacher. However, the existing studies have found sex-typing in teacher responses and expectations (Levitin and Chananie, 1972; Serbin et al., 1973; Fagot and Patterson, 1969).

> . . . Different patterns of teacher-child interaction for boys and girls are clearly present and may well result in further sex differences in cognitive and social development.[6]

The role of the teacher is complex and reflects sex-roles in various ways. This chapter discusses two areas of teacher influence on the sex-roles of young children. The sections include: (1) teacher language and (2) teacher behavior reinforcement.

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[6]Lisa A. Serbin, Daniel O'Leary, Ronald N. Kent, and Ilene J. Tonick, "A Comparison of Teacher Response to the Preacademic and Problem Behavior of Boys and Girls," Child Development, 44:803, 1973.

Teacher Language

Teachers often use sexist language in the classroom. Young children take language literally and children are often confused by sexist words and expression (Johnson et al., 1975). Therefore exclusionary language such as mankind and mailman cannot include women (Sprung, 1975). Various groups concerned with education are examining the sexist and stereotyped views that exist in speech and are emphasizing the limitations of sexist expressions to the child's cognitive and emotional development (Sprung, 1975; Johnson et al., 1975; NCTE pamphlet, 1975).

The teacher can further stress gender differences by lining children up according to sexes, and making suggestions emphasizing sex-roles (Frazier and Sadker, 1973; Simmons, 1976). Sexist statements such as "I need two strong boys to move these heavy books," conflict with the fact that girls are often physically larger than boys during the early years of life. Another example of sex typing is found in teacher made suggestions such as "What boys would like to do woodworking?"; "Jane, can you help me wash the tables?"; and expressions such as, "Boys don't cry" (Simmons, 1976).

Teacher Behavior Reinforcement

Often teacher behavior subtly reinforces sex stereotypes. In Serbin et al. (1973), a study of fifteen female

pre-school teachers, responses to disruptive and dependent behavior are found to vary according to the sex of the child. When measuring teacher response to aggression and destructive behavior, boys were found to receive a higher degree of reprimands than girls and incidences of male aggression were more numerous. There is experimental evidence that teacher attention and reprimands reinforce disruptive behavior (Serbin et al., 1973). Perhaps by reacting more to male aggression and destructive behavior teachers reinforce such sex-typed behavior.

The Serbin et al. study (1973) also found that boys received more directional and instructional responses when soliciting teacher attention than girls. Further differences were noted when examining the relationship between distance to the teacher and the amount of attention received for appropriate behavior. Boys received more attention than girls regardless of proximity to the teacher. However, girls only received as much attention as the boys when close to the teacher. Equivalent amounts of nurturant, more dependent forms of attention were given to both sexes by the teachers. The authors hypothesized that teachers reinforce physical proximity for girls.

The Fagot and Patterson study (1969) examined the role of teachers and peers in reinforcing sex-role behaviors in two nursery school classrooms. Female teachers were found to encourage feminine behavior for both sexes. However, peers reinforced sex appropriate behavior in each

other. The authors' hypothesis that male peer reinforcement for masculine behavior would override the teacher reinforcement for feminine behavior was supported.

Chapter 4

NON-SEXIST EDUCATION

Many groups of parents and educators have recognized the existence of sex-typing in schools and the need for non-sexist education (Frazier and Sadker, 1973; Sprung, 1975). In order to move toward effective non-sexist practices, teachers are encouraged to carefully analyze their classrooms and themselves to determine what hidden messages may exist.

> In doing so, we may discover that while we thought we were helping children toward discovery of their world, in actuality, we may have been limiting and standardizing it, restricting their access to its possibilities, and placing boundaries on their potential. Focusing on the learning opportunities of curriculum areas, it becomes more difficult, if not absurd, to continue to deny those learnings to any child on the basis of gender.[7]

Non-sexist education provides suggestions for creating a learning environment free of sex-role stereotypes and limitations. Suggestions for creating such an environment are numerous. This chapter will focus on the following areas of non-sexist education: (1) elimination of sex-segregated areas, (2) non-sexist materials, (3) curriculum, and (4) teacher behavior.

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[7]Harriet K. Cuffaro, "Reevaluating Basic Premises: Curricula Free of Sexism," Young Children, XXX, September, 1975, p. 74.

Elimination of Sex-Segregated Areas

Sex-segregated areas such as the housekeeping and the block area do not need to exist in nursery school classrooms. Lee (1976) suggests combining the housekeeping and block areas, thereby eliminating separate sex-typed territories and encouraging children to broaden their play. If a teacher prefers separate areas, perhaps the areas could be located next to each other, encouraging spill over play between the areas.

However, the housekeeping corner and block area do not have to carry stereotyped messages. The housekeeping corner can be attractive to both boys and girls by a careful selection of props. For example the introduction of male as well as female dolls may encourage both genders to act out the nurturing roles found in doll play (Sprung, 1975). In addition the play possibilities of dress up clothes can be broadened by selecting work clothes appropriate for either sex (Cuffaro, 1975).

The housekeeping corner can also become a dramatic play area with a changing array of props, creating new play situations such as a hospital or a store (Simmons, 1976). Another approach is to eliminate the standard furniture and introduce hollow blocks (Cuffaro, 1975). The use of hollow blocks could also introduce children to the joys of block building.

Blocks have often been a boy's domain and block

accessories have often been sex-typed. Teachers are encouraged to avoid props with sexist connotations when selecting materials. Careful selection of block toys, location of block area, and teacher encouragement might increase female participation in block play (Cuffaro, 1975; Sprung, 1975).

Non-Sexist Materials

Due to pressure by groups such as the Woman's Action Alliance,[8] some manufacturers have developed non-sexist materials for the pre-school classroom. The Milton Bradley Company has created cardboard stand-up family members for block play. The set consists of a black family of six, and a white family of six members. None of the family figures has a baby, apron, or mixing bowl drawn on his/her body. The Milton Bradley Company and the Guidecraft Company are also producing non-sexist play community helpers.

Commercial made non-stereotyped photographs are also available as classroom teaching aids and for use in play areas. The pictures present males and females in a wide range of activities, and displaying many emotions without sex-role limitations (Sprung, 1975; Shargel and Kane, 1974).

Non-sexist educators also encourage teachers to take pictures of classroom experiences showing children and adults involved in non-stereotyped activities and situations (Sprung,

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[8]Women's Action Alliance, 370 Lexington Ave., N. Y., N. Y. 10017.

1975). Photographs can also be used in the creation of non-sexist games, puzzles, and books (Rausher and Young, eds., 1974; Sprung, 1975).

Ideas for the development of teacher made materials are numerous. The non-sexist child development project enacted under the guidance of the Woman's Action Alliance has many excellent suggestions for teacher made educational tools. These include lotto games using photos of children involved in a variety of experiences, and puzzles made from classroom pictures. Many of these ideas have also been incorporated in commercial materials such as "Play Scene Lotto" by Milton Bradley Company and puzzles depicting adults in non-traditional jobs by Judy Puzzles.

Educators can also create non-sexist story books for the class library. School libraries have traditionally contained a limited selection of sex-fair books. Teachers need to examine children's books for stereotyped images of males and females. Bibliographies of non-sexist books are available and the list of sex-fair books is growing (Sprung, 1975). Today an increasing number of non-sexist story books is being offered by feminist groups as well as the more established publishing companies. Many authors are focusing on a fair presentation of the sexes and have also recognized the changing role of women and men in the work force and the family (Shargel and Kane, 1974; Sprung, 1975).

Curriculum

The early childhood curriculum often includes a unit on the family. The study of the family frequently focuses almost entirely on the nuclear family. A fair presentation of the family should include all types of groupings (Sprung, 1975; Simmons, 1976; Shargel and Kane, 1974). The family unit can be supplemented with books dealing with single parents (both male and female), working parents, adoptive and step parents, and the changing family roles (Sprung, 1975; Rausher and Young, eds., 1974; Shargel and Kane, 1974). Also children can share their own home experiences through discussions and visits by family members (Sprung, 1975).

When the curriculum moves to community workers, educators should not eliminate the female working force. Perhaps female as well as male parents are involved in occupations of interest to the children (Sprung, 1975). Another suggestion is having visits with men and women in non-traditional careers (Simmons, 1976). Children can follow up their study with experience charts or books. There are also books, felt board figures, and photographs available which present both sexes in non-traditional jobs (Sprung, 1975).

Other suggestions for units of study include the human body, homemaking, and sports (Sprung, 1975). Curriculum ideas vary from school to school. However, all units of study should focus on the broad range of human potential

rather than the limits of stereotyped roles (Sprung, 1975; Frazier and Sadker, 1973).

Teacher Behavior

Teacher behavior and attitudes are central to any non-sexist program. Classroom procedures should be carefully analyzed by the school staff (Frazier and Sadker, 1973; Sprung, 1975). Individuals should be aware of possible sex-typing in teacher pupil interaction. Teachers can observe each other in the classroom, analyzing their interactions with students to be sure that physical and verbal reinforcements, as well as discipline, are equally distributed regardless of sex (Simmons, 1976).

Teachers also need to be aware of the hidden messages that can be carried in language and expressions. Non-sexist education emphasizes careful use of the English language (Lindberg, 1976; Sprung, 1975). Expressions such as, "Boys don't cry," do not present a true view of human behavior and emotion. Teachers are encouraged to avoid sexist statements that deny possibilities to either gender.

Many teachers use language that is inappropriate within the context of the expanded view of sex-roles in our world. Educators need to be aware of the confusion presented by terms such as mailman, policeman, and fireman (Johnson and Kelly, 1975). Today these occupations are being open to women. Teachers should use more accurate terminology such as police officer, mail carrier, and fire fighter which

do not exclude members of the work force (NCTE Guidelines, 1975; Johnson and Kelly, 1975). A careful examination of the language used in the classroom is necessary to avoid sex-typing.

Another suggestion for school personnel is the inclusion of male teachers (Fagot and Patterson, 1969; Lee, 1976). The early school years provide few male models for young children and there are few male teachers available. However, regardless of sex, all teachers need to develop their capacity for androgynous behavior (Lee, 1976). Androgynous behavior allows for flexibility of sex-roles (Kaplan and Bean, 1976).

> It simply means that people are free to be and do whatever their bodies, aptitudes and interests allow and that biological sex is not a basis for assigning value to human beings. Whether we be teacher or child, female or male, all of us have much to gain by this reinventing of sex-roles in the early childhood setting.[9]

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[9]Patrick C. Lee, "Reinventing Sex Roles in the Early Childhood Setting," Childhood Education, 52:191 (February, 1976).

Section II

IMPLEMENTATION AND EFFECTS OF A NON-SEXIST PROGRAM

CHRONOLOGY OF STUDY

1. Selection of the population
2. Development of instruments
3. Pre-test using the "Occupation Clue Test," adaption of the "Toy Preference Test," and an adaption of the "Incomplete Stories Test"
4. Development of a non-sexist program
5. Implementation of the non-sexist program for a period of six months
6. Post-test using the "Occupation Clue Test," adaption of the "Toy Preference Test," and adaption of the "Incomplete Stories Test"
7. Analysis of data
8. Reporting of findings
9. Discussion of data

INTRODUCTION

In order to study the effects of a non-sexist pre-kindergarten on sex stereotyped roles, an endeavor was made to develop measurements of sex stereotyped roles in young children. The test instrument consisted of three tests administered before and after implementation of a non-sexist pre-kindergarten program.

This author attempted to develop a non-sexist program based on ideas from non-sexist educators. Through the use of a pre- and post-test, the writer strove to assess the effectiveness of the non-sexist pre-kindergarten program.

Section II of the paper is divided into three chapters dealing with a discussion of (1) methods and procedures, (2) the non-sexist program, and (3) analysis and reporting of findings.

Chapter 5

METHODS AND PROCEDURES

The methods and procedures used in assessing the effectiveness of non-sexist education on sex-role stereotypes is discussed in this chapter under the headings of (1) setting and population, and (2) instruments of study.

Setting and Population

Setting

The study took place at Key Elementary in the District of Columbia Public School System. The fifty year old school is located on spacious wooded grounds in the midst of a residential area. It is part of the Six School Complex. The complex is a group of small elementary schools in the upper north west area of the city that has combined resources. During the four years of its existence, the Six School Complex has consisted of three elementary schools, one middle school (grades 6-8), and the Filmore Resource Center. The resource center is used by all the children in the complex with the exception of pre-kindergarten and some of the kindergarten aged children. The children go to the center once a week for art, music, drama, and dance, with physical education provided for all children at the

individual schools.

Key Elementary has additional resources provided by an active parent group. Parents sponsor fund raising activities in order to provide the staff with money to purchase needed materials. Parents also volunteer to assist teachers, share special talents with the children, and handle publicity for the school. Due to parent involvement, an after school program is also available to working parents at a nominal cost and is operated by a separate professional staff under the guidance of a parent advisory board.

Another unique characteristic of the school is its small size. There were 134 children registered during the 1977-1978 school year in grades pre-kindergarten through fifth. The student body is comprised of a predominantly white population (85%), and the majority of the total school population are from middle to upper-middle class homes with professional parents.

The school staff is comprised of six classroom teachers and ten part-time resource teachers. Due to the small student population, the school shares a principal with another small school in the complex.

Within this unusual urban elementary school, is the pre-kindergarten where the study took place. The room is a large, sunny room and was originally designed for kindergarten aged children. Due to assistance from the principal and parents, this teacher was able to purchase materials not available through the school system. The class environment

is sectioned off by shelves into a block area, dramatic play area, an art area, a table activities area, a science area, and a large space for group activities and a class library.

At the time of the pre-test in October 1977, the age range was from three years ten months to four years nine months. The majority of the subjects were four years of age, with only two children who were not quite four and two children who were over four and a half years.

A control group of ten pre-kindergarten children was also selected from another school in the Six School Complex. The group of five girls and five boys was of comparable age, racial, and economic make-up to the study population. The control group was not exposed to a non-sexist program and was only given the post-test in April 1978.

Instruments of Study

Each member of the test population was individually given a pre-test in October 1977, exposed to the non-sexist program and then given a post-test in April 1978. The control group was administered the post-test in April 1978. The pre- and post-tests were identical and consisted of the "Occupation Clue Test," an adaption of the "Toy Preference Test," and an adaption of the "Incomplete Stories Test."

Occupation Clue Test

The "Occupation Clue Test" was developed by this writer to measure stereotypes of adult occupational roles.

The instrument consists of five sketches (see Appendix A). Each sketch contains an adult male and female. The children were asked to select the figure who was a member of a certain occupational group. Job clues, such as dress and tools of the trade were drawn with the figure the children were asked to select. The paired opposite-sex figure did not have the proper occupational clues.

The purpose of the "Occupation Clue" instrument was to determine if stereotypes of sex-typed occupations would be the factor of selection, or if the child would use the occupational clues as criteria for selection. Attempts were made to make proper selection obvious except in the service man/police officer sketch, where more careful observation was necessary.

The first sketch shows a female in work clothes holding a large paint brush and a bucket of paint, and a male with an artist's brush and palette. Each subject was shown the picture. The experimenter said, "This is Joyce," and pointed to the house painter; and, "This is Sam," while pointing at the artist. The subject was then asked to point to the house painter.

In the second sketch was a female in office clothes carrying a brief case paired with a male librarian taking books from a library cart. While pointing to each figure the experimenter identified them by name; "This is Mary," and, "This is John." The subject was then asked to point to the librarian.

The third sketch showed a male dancer in leotards and a female dressed in street clothes. The experimenter then said, "This is Larry" (pointing to the dancer), and, "This is Sara"(pointing to the woman). "Now can you show me the dancer."

The fifth sketch showed a male in an armed forces dress uniform and a female police officer with a gun. After showing the child the picture, the experimenter said, "This is Tom" (pointing to the service man), and, "This is Jane" (pointing to the police officer); "Now can you show which person is the police officer."

Adaption of the Toy Preference Test

The second instrument was an adaption of the "Toy Preference Test" standardized by Rabban (1950), DeLucia (1963), Ward (1968), and Ross and Ross (1972). The author used nine of the twelve toys selected in the Ross and Ross study in 1972. The nine toys were categorized as either male typed, female typed, or sex-neutral. Male typed toys were an airplane, gun, and a boat. Female typed toys were cradle and doll, jewelry, and a tea set. Sex-neutral toys included a kaleidoscope, flute, and a bubble pipe.

This instrument attempted to measure the degree of sex typing in toy selection. It also was used as a measurement of sex-stereotyped knowledge when choosing sex appropriate toys for the opposite gender.

Each subject was given time to observe and manipulate

the toys. The experimenter then expressed an interest in which toys children liked the best. Each child was asked to select his/her first, second, and third favorite toys from the set of toys. Next the children were asked to select the three toys they thought an opposite sex child would enjoy in order of preference.

Adaption of the Incomplete Stories Test

The final instrument of study was an adaption of the "Incomplete Stories Test" developed by Selcer and Hiton (1970) to measure stereotyped opinions of male/female behavior. The instrument consisted of four photographs showing children involved in activities (see Appendix B). The subjects were then asked questions calling for inferred opinions concerning what happened before, after, or during the scene pictured.

The purpose of the third instrument was to measure the degree of sex-typed behavior stereotypes in the test sample. The photographs contained children and adults who were unknown to the participants. Therefore, knowledge of an individual's behavior would not interfere in a child's interpretation of the pictured situation.

The first photograph was of a preschool aged boy and girl fighting. Each subject was given time to observe the picture and discuss the situation. The experimenter said, "Sam and Carol are fighting. Who do you think started the fight? Who do you think will tell the teacher?"

In the second photo a boy and girl are talking in a nursery school classroom. The experimenter tells the child that Mary and Tom are deciding where they will play next. The child is then asked who he/she thinks will want to play house, and who will want to play blocks.

The third photo shows a young girl in the foreground playing with blocks in her home. In the background are her parents who are reading on the sofa. After showing the test subject the picture, the tester said: "Joyce is playing with blocks while her mommy and daddy are reading. Now Joyce wants to play with someone; who will she ask to play with her? Now it is time for bed and Joyce needs to put away her blocks. Who will she ask to help her clean up?"

The fourth photograph shows a boy and girl playing tug of war with a rope on the playground. The subject was told that Eddie and Sarah are playing tug of war with a rope. The child was then asked to point to the child he/she thought would win.

Chapter 6

DEVELOPMENT OF A NON-SEXIST PROGRAM

Areas of concern in developing a non-sexist program are discussed in this chapter under the headings of (1) room arrangement and materials, (2) units of study, and (3) classroom personnel.

Room Arrangement and Materials

Room Arrangement

The first consideration in setting up a non-sexist classroom was the physical environment. Room arrangement consisted of a block corner located next to the dramatic play area, an art area, a large open space for whole group activities and a classroom library, a table activities area, and a science area. Each area contained photographs of boys and girls involved in similar activities.

Classroom areas of special concern were the dramatic play and block areas. Special emphasis was placed on non-sexist props in these areas. The block corner contained non-stereotyped photos of adults and children involved in building skills. Block accessories included cars, trucks, hard hats, farm and zoo animals, dinosaurs, doll house with play furniture, and non-stereotyped family and career figures.

The dramatic play area changed during the year from a house to a hospital to a school and back to a house. Other play situations were planned; however, due to the loss of a teacher assistant these plans were discarded. Attempts were made to provide play environments attractive to both sexes.

Teacher-made, large, hollow blocks were included in the dramatic play area to facilitate student-made props. The blocks were made from liquor boxes that were stuffed with newspapers and painted bright colors. Tri-wall (heavy cardboard) planks were also included with the blocks.

When the area was a house, standard play furniture was included with the large blocks. Dress-up clothes consisted of male and female clothes as well as sex-neutral work clothes. A brief case, satchels, hats, and shoes were also included in the dress-up props. Special attention was also given to a display of photogr phs depicting males and females involved in non-stereotyped family roles. The house area coincided with the family unit of study.

When the dramatic play area was a hospital, photographs displaying male and female doctors were used. The non-sexist photographs were from a series of photos entitled "People at Work" by the Instructo Corporation. Hospital dress-up props were also included. The props were white shirts with a red cross, cardboard hats with a red cross, and medical tools such as a stethoscope and a syringe. The furniture consisted of a cot, desk, phone, and large

blocks. The hospital area coincided with the study of doctors and nurses.

Classroom Materials

The existing manipulative toys were reviewed for sex-typing and some non-sexist materials were purchased. The non-sexist materials that were popular with the children were "Play Scenes Lotto" by Milton Bradley, the female doctor and the female pilot puzzles by Judy Puzzles, and the newly developed wooden family and career block figures by the Guidecraft Company.

When selecting books for the class library careful attention was given to choosing non-sexist and sex fair story books. Several books were purchased from non-sexist publishing companies. The most popular books were purchased from Lollipop Power, Inc.[10]

Units of Study

Another area of consideration were the units of study. When studying community helpers, people in non-traditional jobs were brought into the classroom. These included a male nurse, two female dentists, and a female police officer. Photographs were taken of the visits and these were used to make books. Class discussions focusing on the jobs people do were also supplemented by commercial

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[10]Lollipop Power, Inc., P. O. Box 1171, Chapel Hill, North Carolina 27514.

photographs, books, and non-stereotyped flannel board figures.

The family unit studied various family groupings. Several children lived in non-traditional family units such as one parent homes. Discussions of various family groups were facilitated by the children's own experiences and books.

Family members were invited into the classroom. One father served as a teacher assistant for several weeks, displaying the male nurturant role and sharing his occupational skill as a musician. Another set of parents visited the classroom with their baby. The father bathed the infant in the dramatic play area and then the mother nursed the baby boy. Pictures were taken of the family visit for a class made book.

Classroom Personnel

The final area of special concern in developing a non-sexist program was the classroom personnel. As a female teacher, this writer was concerned with the lack of exposure to males in the nurturing role by pre-kindergarten children. Therefore male support staff was sought. A father did help in the classroom for a short period of time. There was also a male as well as female university students who assisted the program as part of a class assignment. The university students were taking a course entitled "Sexism in School and Society" under Dr. Myra Sadker,

a non-sexist educator and writer.

The college students took part in every aspect of the class program. The male student also led cooking experiences with the children. All of the student assistants developed non-sexist projects to use with young children. The projects included matching games using non-stereotyped pictures and a ring toss game using people in non-traditional occupations.

A senior citizen who lives across from the school also became involved in the classroom activities. He has been active in helping the children with a vegetable garden, and has become our class grandfather.

In setting up a non-sexist program, this teacher was concerned with teacher behavior. There was no one available to observe teacher behavior. Therefore, this writer tried to be conscious of the subtle behavior that can reinforce sex roles in young children.

Also, special attention was given to language. Exclusionary language, such as mailman and fireman were deleted from the teacher's vocabulary. More precise language such as mail carrier and fire fighter were used. Sexist expressions were also avoided by the teacher.

Chapter 7

ANALYSIS AND REPORTING OF FINDINGS

In discussing the results and analysis of the data, this chapter is divided into a description of the results of the study and the influence of the non-sexist program.

Results of the Study

The data collected from the instruments of study were assigned two points for non-stereotyped replies, one point for sex-neutral choices and no points for stereotyped replies. The higher the scores the less sex-stereotyped the replies. In order to measure the difference between the means of the pre-test and post-test for the study population, the t test for related samples was used. The t test for unrelated samples was used to measure the difference between the means of the control group and the study population.

In order to discuss the results of the study, these data are divided into an analysis of the total measurement, as well as each of the three parts of the measurement, and a comparison of male and female scores.

Findings of the Total Measurement

In order to measure the effects of the non-sexist

program on sex-stereotypes in the study population, the t test for related samples was employed. The t test for related samples was used to measure the difference between the means of the pre-test and post-test for the study population. The results were not significant at the .05 level.

There were several factors that may have affected the lack of statistical support. One such factor was the classroom environment prior to pre-testing. The purpose of the pre-test was to measure sex-role stereotypes before exposing the study group to a non-sexist program. Although non-sexist materials and resources were not used during this period the teacher did encourage non-sexist behavior and avoided sexist language. Perhaps the partially non-sexist environment prior to administering the pre-test was already producing a change in sex-role stereotypes, therefore interfering with the pre-test results.

Another limiting factor to the study was the testing environment during the pre-test. During the administration of the pre-test there was no adult assistance in the classroom and the measurement was given in the midst of classroom activities. The children who were not being tested were involved in other activities and were asked not to interrupt the teacher unless absolutely necessary. However, this proved to be too difficult a task for curious four year olds and the pre-test was interrupted due to demands for teacher assistance. The interruptions often distracted the

test subjects and interfered with the test procedures. Therefore, this author questions some of the pre-test results.

Another factor that may have affected the results of the total measurement was the lack of assistance during the implementation of the non-sexist program. The lack of a teacher aide necessitated restricting some of the planned non-sexist projects and the discarding of behavioral observations due to lack of adult assistance. Since little planning time is available at the pre-kindergarten level without the assistance of a teacher aide, the teacher had less time to prepare materials and to work individually with the children.

Although the data showed no significant change in sex-role stereotypes at the .05 level, non-stereotyped replies did increase slightly at the post-test level (Figure 1). However, when a comparison was made of the study sample and the control group at the post- level, the study population was found to be less stereotyped (Figure 2). The results of a t test for unrelated samples found the difference between the means of both groups to be highly significant. The experimental group was less sex-typed after exposure to the non-sexist curriculum when compared to the control group. Therefore, this writer feels there is supportive evidence that the non-sexist program did reduce sex-role stereotypes in pre-kindergarten aged children to some degree.

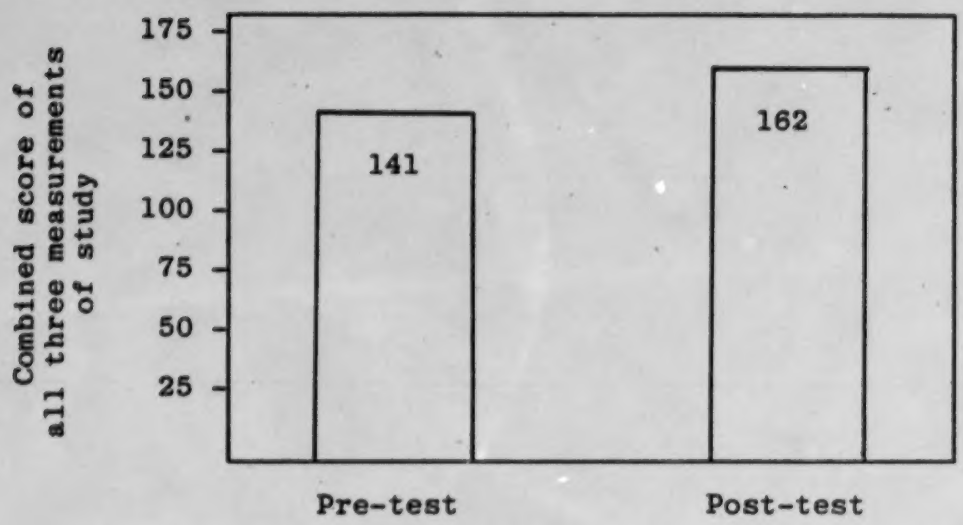


Figure 1. Comparison of the pre- and post-test scores of the study population

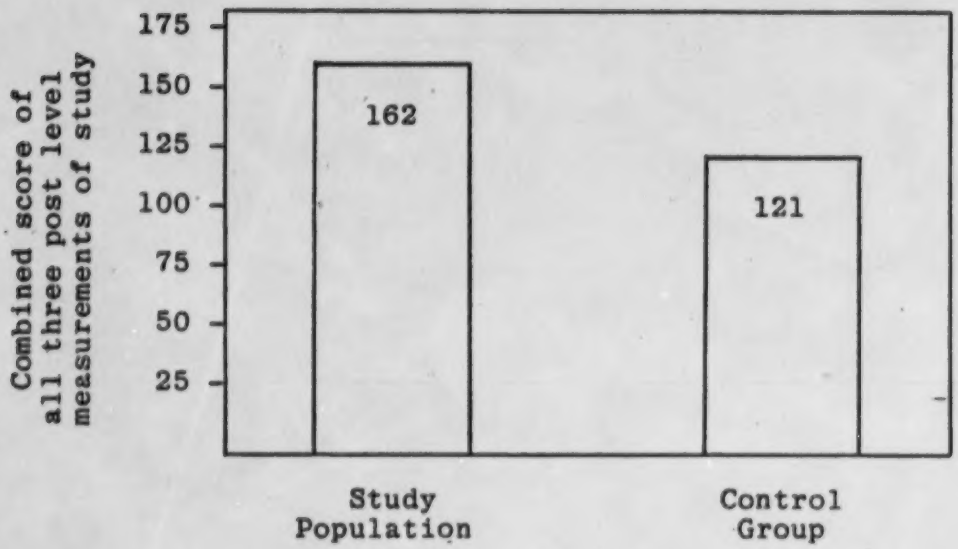


Figure 2. Comparison of the post-test scores between the study population and the control group

Occupation Clue Test

The t test for related samples was used to measure the difference between the means of the pre-test and the post-test for the "Occupation Clue" measurement. The results were significant at the .05 level with a .9 difference. The study population's ability to identify non-traditional occupational members increased dramatically after exposure to non-sexist education (Figure 3).

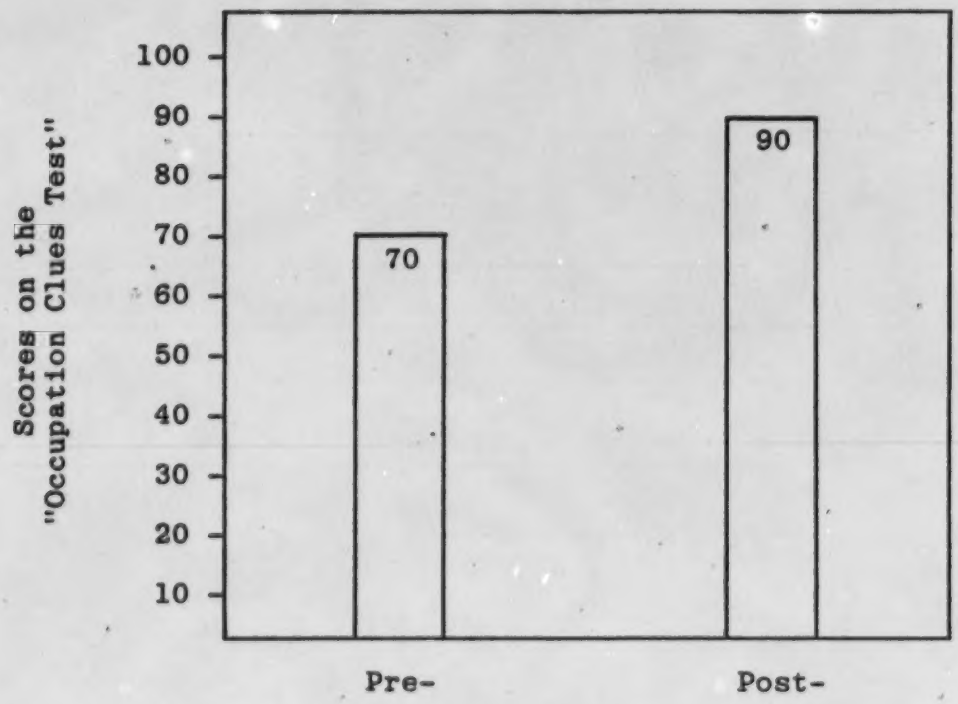


Figure 3. Comparison of the pre- and post- "Occupation Clue Test" in the study population

Therefore, the area of the non-sexist program that produced the greatest impact on sex-role stereotypes in young children was the introduction of non-stereotyped

members to the classroom experience. A large proportion of the children who were unable to identify the female police officer at the pre-test level were able to select the correct figure after exposure to a female police officer in the classroom setting.

Adaption of the Toy Preference Test

The results of the t test for related samples was not significant at the .05 level on the adaption of the "Toy Preference Test." The introduction of less stereotyped toys and teacher reinforcement for the children's involvement with non-sex-typed toys did not produce a significant change in toy preferences among the sample population (Figure 4).

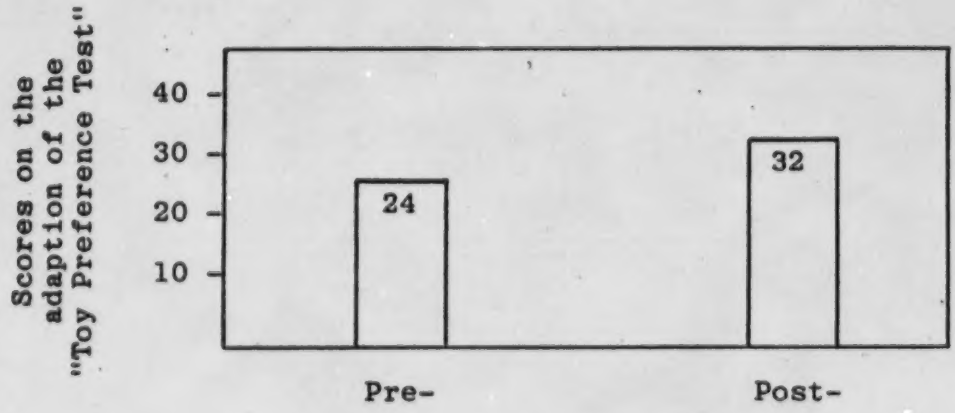


Figure 4. Comparison of the pre- and post-adaption of the "Toy Preference Test"

One factor that may have affected the results was the toys used in the measurement. The adaption of the "Toy Preference" measurement used a mixture of toys not available for classroom activities, and toys similar to classroom toys.

Some of the toys such as a doll, plane, boat, and dishes could be found in another form in the pre-kindergarten environment. However, there were no guns, jewelry, kaleidoscopes, flutes, or bubble pipes available for classroom activities. Some of the children seemed to be attracted by the novelty of the toys in the school environment. This mixture of toys may have interfered with the child's selection of toys. This writer suggests either the use of a set of toys not available for classroom use, or a set of toys found in another form in the pre-kindergarten setting.

Another factor that may have interfered with toy preference results was the time allowed for selection. Some children were more interested in playing with the toys than in choosing another set of toys for the opposite sex. For instance, one child eagerly chose his favorite toys and when asked to choose for the opposite sex did not stop manipulating his selection and gave the same reply. More time should have been allowed for manipulation of the toys.

The preceding problems encountered in the administration of this measurement may have interfered with the data collected. However, there is also the possibility that a non-sexist program cannot be expected to elicit change in the toy preferences of young children. Previous studies have found young children resistant to change in their sex-typed selection of toys (Hartup and Zook, 1960; Ross and Ross, 1972.)

Adaption of the Incomplete Stories Test

The t test for related samples measured no significant changes in sex-typing among the test population on the adaption of the "Incomplete Stories Test." This instrument attempted to measure awareness of sex-stereotyped behavior. The non-sexist program attempted to elicit a less sex-typed view of behavior. However, there was no statistical support showing a change in sex-typing after exposure to the pre-kindergarten program on this measurement (Figure 5).

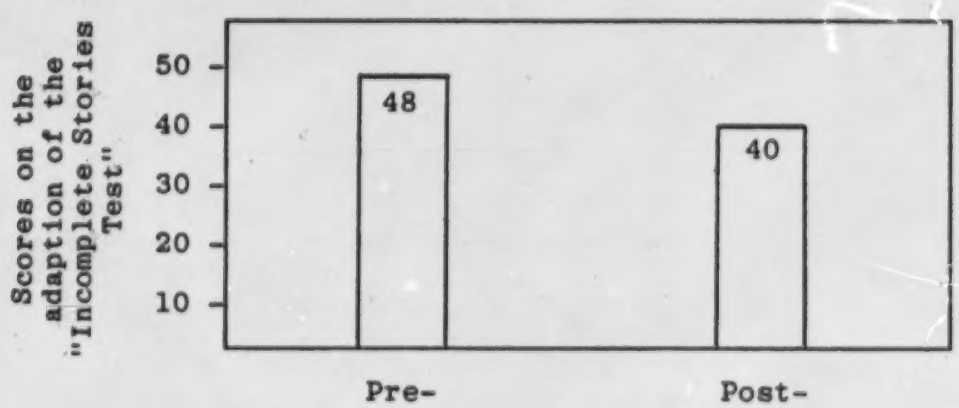


Figure 5. Comparison of the pre- and post- adaption of the "Incomplete Stories Test"

Perhaps the lack of supportive data can be due in part to problems with the measurement. During the administration of the adaption of the "Incomplete Stories Test," children consistently interchanged both possible answers when asked two questions. For instance, in the photo showing a boy and girl fighting, if a subject stated the

girl started the fight then the boy would tell the teacher, but if they stated a boy started the fight then the girl would tell the teacher. It seemed the children felt inclined to include all the individuals pictured in the inferred story. Perhaps more questions should have been included in the instrument to overcome this possibility.

Also the photograph depicting the home situation seemed to elicit less definite replies. There seemed to be few stereotyped parent roles involved in playing and helping a child to clean up toys. Perhaps more stereotyped parent roles should have been used. Also some of the children come from one parent homes and this could have interfered with the responses.

Comparison of the Male and Female Scores

The t test was used to measure the difference between the male and female scores at the pre- and post-test levels of measurement. The results found males more sex-typed than females with a significance of .001 on both the pre- and post-tests. This is in agreement with past research results that found boys to be the more sex-typed gender (Nadelman, 1974; DeLucia, 1963; Brown, 1957; and Ward, 1968).

The author expected males to be the more sex-typed gender due to societal pressures on boys for masculine attributes. These attributes are extended to dress, behavior, and expectations. Cultural expectations for girls allow more ambiguous sex role patterns during childhood.

Traditionally girls have been allowed to adopt some masculine assigned attributes during childhood with little adult concern. However, a boy who assumes any female assigned attributes has generally been a cause of concern. While society's view of the sex roles is changing, the change has been slow. Also, the female's more ambiguous sex-role patterns may reflect their awareness of the greater status of traditionally male roles in society.

Even though male scores were more stereotyped on both the pre- and post-tests the difference between the pre- and post- scores for both sexes was similar (Figures 6 and 7). Male and female scores were less stereotyped after exposure to the non-sexist program although the increase was not significant at the .05 level. The non-sexist pre-kindergarten program seemed to affect both sexes to the same degree as measured by the total instrument.

Influence of the Non-Sexist Program

Other influences of the non-sexist program not included in the measurements of study are discussed in this section. These include possible influences on selection of classroom activities, conversations, and behavior.

Selection of Classroom Activities

Due to limited observations, behavioral data were discarded as a measurement of study. However, this teacher did observe less sex-typed behavior in the classroom after

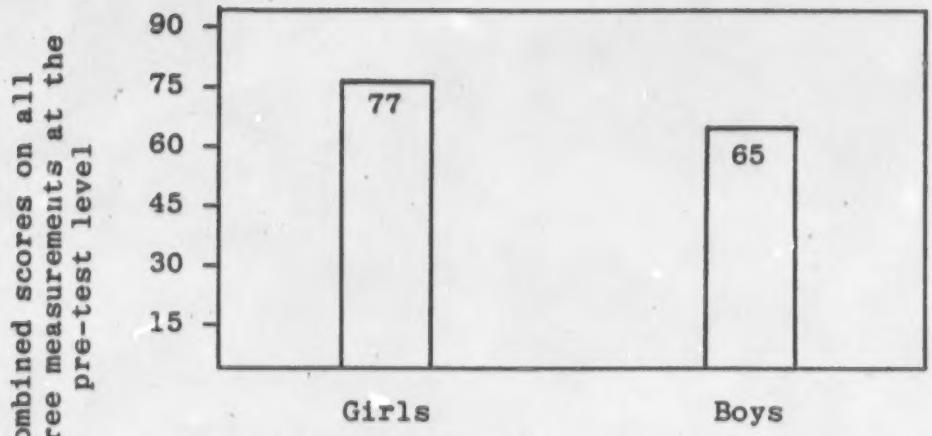


Figure 6. Comparison of male and female scores at the pre- level of measurement

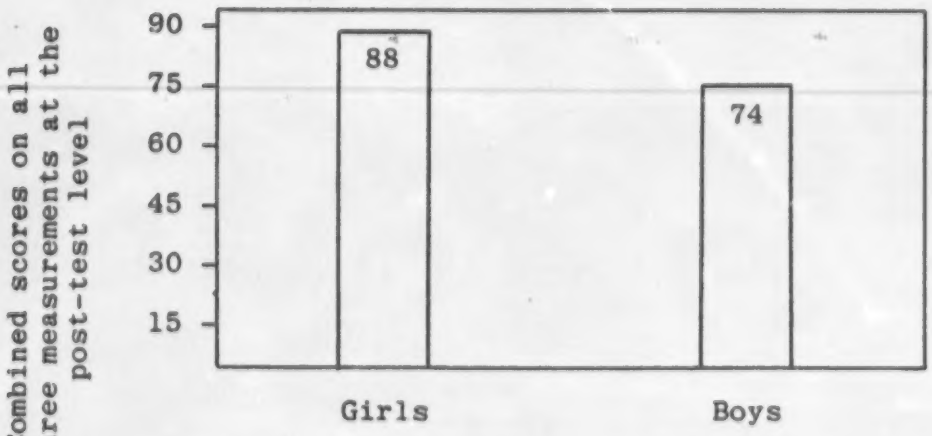


Figure 7. Comparison of male and female scores at the post- level of measurement

enacting a non-sexist program

Before the non-sexist program, the block corner was dominated by boys. However, after non-stereotyped block figures were introduced to the block area, girls began to use blocks more frequently. The non-stereotyped props seemed to attract both sexes to this area.

Another traditionally sex-segregated pre-kindergarten area is the dramatic play area, usually consisting of the traditional house environment (Shure, 1963). In the non-sexist program this area became a dramatic play area with a changing array of props depicting different settings. This teacher found both sexes actively involved in all aspects of dramatic play.

Conversation and Behavior

Many of the conversations concerning sex-roles took place in the dramatic play area. Before enacting the non-sexist program this teacher overheard sex-typed expressions in the dramatic play situations. Expressions such as, "Girls can't be doctors," and, "Boys can't be nurses," were prevalent when the area was a hospital. However, such sex-typed statements declined after the introduction of non-stereotyped photos, books about female doctors, discussions, and a visit by a male nurse. Also several of the boys began to take on the role of the nurse and some of the girls began playing the doctor.

When the dramatic play area became a house, boys as

well as girls were involved in acting out a variety of family roles. Less sex-typed role playing seemed to be influenced by the inclusion of non-stereotyped props, pictures of men and women in nurturing roles, a visit with a family, and the use of stories depicting a variety of family groupings.

SUMMARY AND CONCLUSIONS

The differences between the sexes beyond the anatomical categories is evident at an early age. Sex-typing in choice of activities has been observed as early as four years of age and has been found to increase with age (DeLucia, 1963). Young children are not only aware of sex-roles for their own gender but project sex-role standards to the opposite sex (Brown, 1957). The process of internalization of sex-role standards is still a subject of conjecture.

However, most behaviorists agree that sex-role socialization is influenced by many socialization agencies (Maccoby, 1966). One such agency is the school. Schools as a complex social environment often encourage sex-linked behavior (Frazier and Sadker, 1973). Such sex-linked behavior has been observed in sex-segregated areas and sex-typed teacher behavior at the pre-kindergarten level (Shure, 1963; Serbin et al., 1973). Groups concerned with the liberation of the sexes have focused on early childhood as the origin of counter-productive sex-linked roles and have emphasized the need for non-sexist education (Sprung, 1975).

Non-sexist education has stressed the need to examine the classroom environment for sexist messages and remove sex-stereotyped expectations from the classroom environment.

Some of the approaches to non-sexist education that have been formulated include consciousness-raising for school staff, and the development of non-sexist materials and curriculum ideas (McCune and Matthews, 1976). Such an environment provides a potential catalyst for encouraging the optimum development of young children regardless of sex.

Due to concern about the restraints rigid sex-roles impose on learning and the contingency of teacher influence in encouraging non-stereotyped options, this author developed a non-sexist pre-kindergarten program. Special attention was given to room arrangement and the elimination of sex-segregated areas. Classroom materials were also examined and materials emphasizing sex-roles were eliminated. Some non-sexist materials were purchased and developed for classroom use. Curriculum units emphasizing non-stereotyped roles in the work force and the family were also incorporated into the program. In addition the teacher attempted to eliminate behavior and language that reinforced sex differences from her role as a teacher.

In order to assess the possible influences non-sexist education might have on sex-role stereotypes in young children, this author developed a set of measurements to be administered before and after exposure to the non-sexist program. The total measurement consisted of an "Occupation Clue Test," an adaption of the "Toy Preference Test," and an adaption of the "Incomplete Stories Test." These instruments were used to measure sex-role stereotypes in

the study population before and after exposure to the program. A control group who did not participate in the program was also tested at the post- level of measurement.

A non-sexist program does seem to change sex-role stereotypes in young children to some degree. Children who are exposed to a non-sexist program that emphasizes non-traditional adult workers appear to become less stereotyped concerning occupation roles. This author feels this is an important aspect of non-sexist education. Many of the traditional male/female stereotypes have and are changing, and the school should reflect this in its curriculum. In general the children who did participate in a pre-kindergarten program stressing non-sexist education seemed to be less stereotyped than children in a traditional nursery school program. Even though girls were found to be less stereotyped than boys, the program seemed to lessen sex stereotypes in both sexes who were involved in non-sexist education.

However, a non-sexist program does not appear to change toy choices or opinions concerning sex-typed behavior in young children. This author feels changes in toy preferences and opinions may not be apparent in a questionnaire but may be reflected in behavior. Therefore, without behavioral data the possible influence of a non-sexist classroom on sex-typing of materials and behavior is still a matter of conjecture. There is a need for further research into the effects of non-sexist education.

Suggestions for future research should include a revision of the instruments of study due to problems entailed in the use of these measurements. The pre- and post-test measurements should also be accompanied by observations of classroom behavior among the study population. The addition of behavioral data would increase the significance of the study and provide a measurement for potential change in sex-typed behavior.

The author also suggests the need to study the effects of a non-sexist program on sex-role stereotypes over a longer period of time and with a larger population. At this point comments of the potential effects of non-sexist education beyond the nursery school years is speculative. There is a need for continued investigation concerning the relationship of non-sexist education and sex-stereotyped roles in school aged children. Continued study of the potential role of education on sex-role stereotypes might provide information on how schools can ensure that both sexes have equal opportunities for learning in the educational environment.

Periodicals

Biber, Henry, Louise B. Miller, and Jean L. Dyer. "Feminization in Preschool." Developmental Psychology, 7 (1972), 86.

Brown, Daniel G. "Masculinity-Femininity Development in Children." Journal of Consulting Psychology, 21 (1957), 197-202.

Cuffaro, Harriet K. "Reevaluating Basic Premises: Curricula Free of Sexism." Young Children, 30 (September, 1975), 469-78.

DeLucia, Lenore A. "Toy Preference Test: A Measure of Sex-role Identification." Child Development, 34 (1963), 107-17.

Fagot, Beverly I., Gerald R. Patterson. "An In Vivo Analysis of Reinforcing Contingencies for Sex-Role Behaviors in the Preschool Child." Developmental Psychology, 1 (1969), 563-68.

Hartup, Willard W., and Elsie A. Zook. "Sex-Role Preferences in Three and Four Year Old Children." Journal of Consulting Psychology, 24 (1960), 420-27.

Johnson, Carole Schulte, and Inga Kromann Kelly. "'He' and 'She'; Changing Language to Females and a Changing World." Educational Leadership, 32 (May, 1975), 527-30.

Kagan, Jerome. "The Emergence of Sex Difference." School Review, 80 (February, 1972), 217-27.

Klapper, Zelda S. "The Impact of the Women's Liberation Movement on Child Development Books." American Journal of Orthopsychiatry, 41 (October, 1971), 725-32.

Lee, Patrick C., and Nancy B. Gropper. "Sex-Role Culture and Educational Practice." Harvard Educational Review, 44 (August, 1974), 369-410.

_____. "Reinventing Sex Roles in the Early Childhood Setting." Childhood Education, 52 (February, 1976), 187-91.

Levitin, Teresa E., J. D. Chananie. "Responses of Female Primary School Teachers to Sex-Typed Behaviors in Male and Female Children." Child Development, 43 (December, 1972), 1309-16.

Lindberg, Dormalee H. "Idea Spark-ers." Childhood Education, 52 (February, 1976), 196-98.

McCune, Shirley D., and Martha Matthews. "Toward a Nonsexist Education for All Children." Childhood Education, 52 February, 1976), 179-86.

Nadelman, Lorraine. "Sex Identity in American Children: Memory, Knowledge, and Preference Tests." Developmental Psychology, 10 (May, 1974), 413-17.

Paley, Vivian. "Is the Doll Corner a Sexist Institution?" School Review, 81 (August, 1973), 569-76.

Rabban, M. "Sex-Role Identification in Young Children in Two Diverse Social Groups." Genetic Psychology Monograph, 42 (1950), 81-158.

Ross, Dorothea M., and Sheila A. Ross. "Resistance by Pre-school Boys to Sex-Inappropriate Behavior." Journal of Educational Psychology, 63 (August, 1972), 342-46.

Sears, Robert P. "Relation of Early Socialization Experience to Self Concepts and Gender Roles." Child Development, 41 (June, 1970), 267-89.

Serbin, Lisa A., K. Daniel O'Leary, Ronald N. Kent, and Illene J. Tonick. "A Comparison of Teacher Response to the Pre-Academic and Problem Behavior of Boys and Girls." Child Development, 44 (1973), 796-804.

Shure, Myrna Beth. "Psychological Ecology of a Nursery School." Child Development, 34 (1963), 979-92.

Simmons, Barbara. "Teachers, Be(a)ware of Sex Stereotyping." Childhood Education, 52 (February, 1976), 192-95.

Vener, Arthur M., and Clinton A. Snyder. "The Preschool Child's Awareness and Anticipation of Adult Sex-Roles." Sociometry, 29 (1966), 158-68.

Ward, William D. "Variance of Sex-Role Preference Among Boys and Girls." Psychological Reports, 23 (1968), 476-80.

Weitzman, Lenore J. "Sex-Role Socialization in Picture Books for Pre-School Children." American Journal of Sociology, 77 (May, 1972), 1125-1150.

Williams, John E., Susan M. Bennett, and Deborah L. Best. "Awareness and Expression of Sex Stereotypes in Young Children." Developmental Psychology, 11 (1975), 635-42.

ERIC Documents

Harwood, Joleen. Survey of Sex Role Stereotypes in Preschool Children. U. S., Educational Resources Information Center, ERIC Document ED 119 833, 1975.

Jennings, Kay D. People vs. Object Orientation in Preschool Boys and Girls. U. S., Educational Resources Information Center, ERIC Document ED 111 502, April, 1975.

McIntyre, Anne. Sex Differences in Children's Aggression. U. S., Educational Resources Information Center, ERIC Document ED 070 519, 1969.

Selcer, Roberta J., and Irma R. Hiton. Cultural Differences in the Acquisition of Sex-Roles. U. S., Educational Resources Information Center, ERIC Document ED 077 585, 1970.

Tremaine, L., P. L. Ein, and C. S. Garrett. Gender Knowledge and Sex-Role Stereotypes in Young Children: A Critical Review and Interpretation. U. S., Educational Resources Information Center, ERIC Document ED 130 802, April, 1976.

Books

D'Andrade, Roy G. The Development of Sex Differences, ed. Eleanor E. Maccoby. Stanford, Calfornia: Stanford University Press, 1966.

Dewey, James. Experience and Education. London: Collier-MacMillan, 1963.

Frazier, Nancy, and Myra Sadker. Sexism in School and Society. New York: Harper and Row, 1973.

Hirsch, Elisabeth S., ed. The Block Book. Washington, D.C.: National Association for the Education of Young Children, 1974.

Kaplan, Alexandra G., and Joan P. Bean, eds., Beyond Sex-Role Stereotypes Readings Toward a Psychology of Androgyny. Boston: Little, Brown and Company, 1976.

Kohlberg, Lawrence. The Development of Sex Differences, ed. Eleanor E. Maccoby. Stanford, California: Stanford University Press, 1966.

Maccoby, Eleanor E., ed. The Development of Sex Differences. Stanford, California: Stanford University Press, 1966.

Maccoby, Eleanor E., and Carol N. Jacklin. The Psychology of Sex Differences. Stanford, California: Stanford University Press, 1974.

Mischell, Walter. The Development of Sex Differences., ed. Eleanor E. Maccoby. Stanford, California: Stanford University Press, 1966.

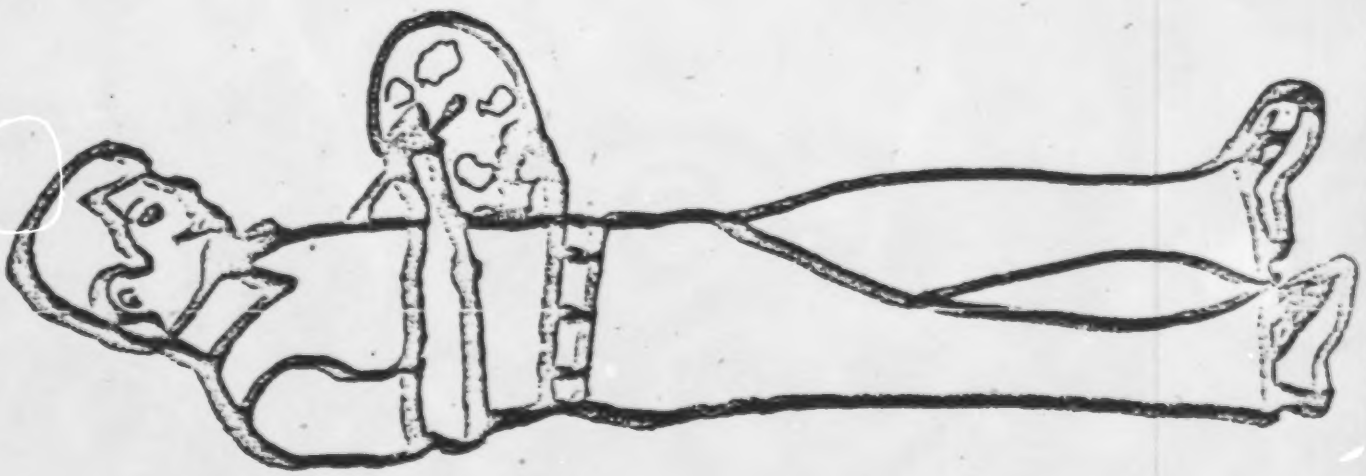
National Council of Teachers of English. Guidelines for Nonsexist Use of Language in NCTE Publications. Urbana, Illinois, 1975.

Rausher, Shirley R., and Teresa Young, eds. Sexism, Teachers and Young Children. Early Childhood Education Council of New York, 1974.

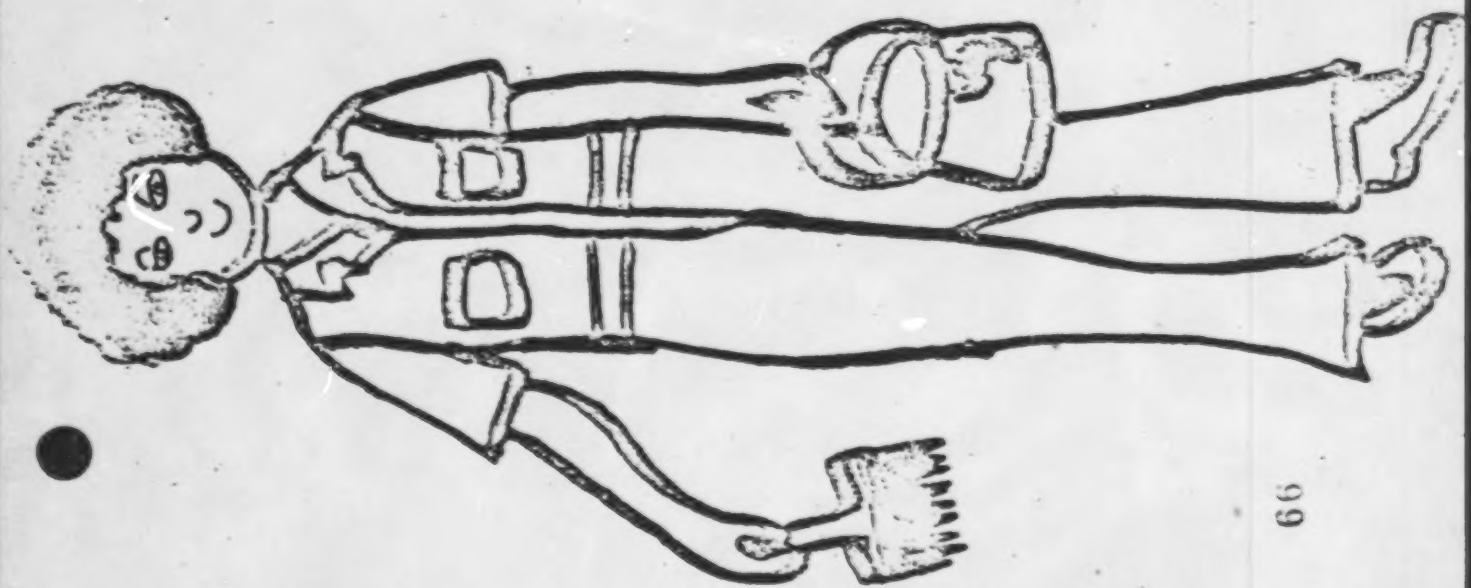
Shargel, Susan, and Irene Kane. We Can Change It!. San Francisco: Change for Children, 1974.

Smilansky, Sara. Play: The Child Strives Toward Self-Realization. Proceedings of a National Association for the Education of Young Children Conference. Washington, D.C., 1971.

APPENDIX A. Sketches for the "Occupation Clue Test"



(1) House Painter



(2) Librarian

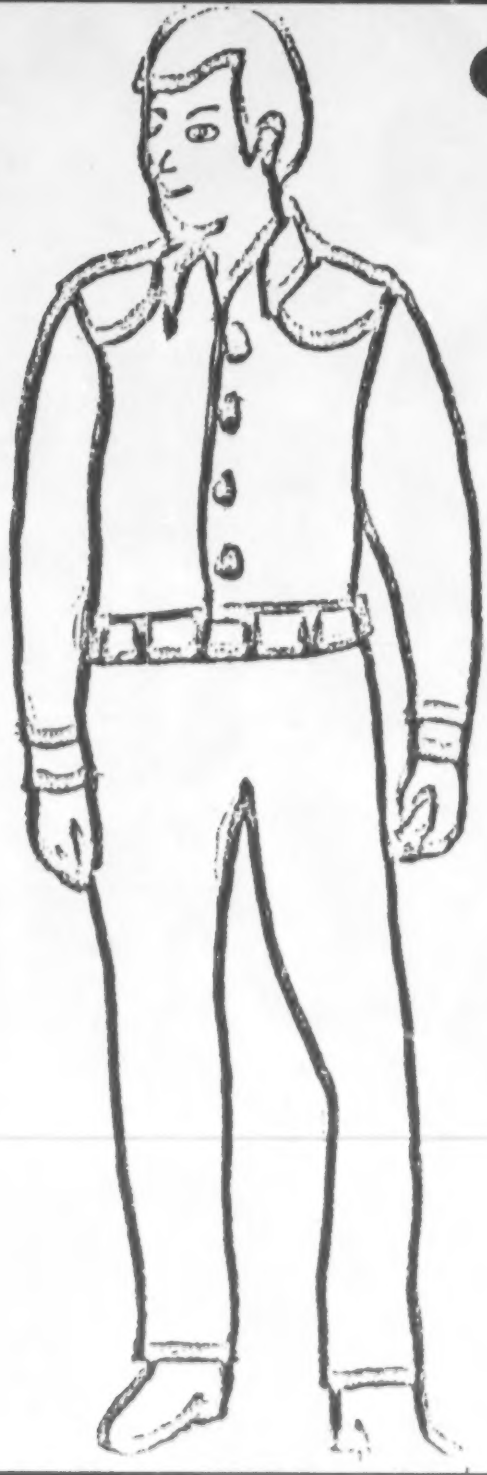
70

(3) Dancer

67

71

(4) Carpenter



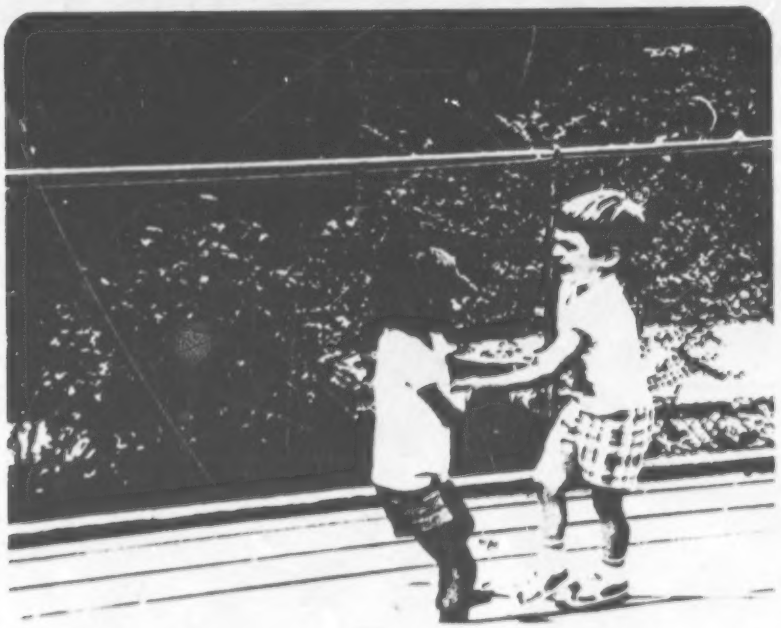
71

(5) Police Officer

69

75

APPENDIX B. Photographs, "Incomplete Stories Test"



(1) Boy and Girl Fighting

(2) Boy and Girl in Classroom

(3) Home Scene

(4) Tug of War